Amendments to the Specification

On page 1, line 1, please insert the following:

TITLE: DEVICE FOR DETECTING THERMAL CONDUCTIVITY BY MEANS OF OPTICAL PULSES

Please replace the paragraph beginning on page 1, line 19, with the following rewritten paragraph:

The US Patent 4,928,254 discloses a device for and a method of detecting the thermal conductivity by application of an optical pulse method. There, a sample is irradiated with a succession of optical pulses from a YAG laser. A sensor is used to detect the infrared radiation emitted by the sample. Then, the thermal conductivity is calculated by deriving it from the result of measurement by means of a computer. Moreover, a certain fraction is decoupled from the laser beam and supplied to a photo diode. The computer can then determine the number of laser pulses issued on the basis of the signal from the photo diode. In this method, too, the shape of the laser pulses ~~it~~ is left out of consideration.

Please replace the paragraph beginning on page 2, line 27, with the following rewritten paragraph:

The present invention is based on the problem of improving a device for or a method of detecting the thermal conductivity by means of optical pulse techniques in such a way that even in the case of comparatively long optical pulses as well as extremely thin samples or of an extremely high thermal conductivity, measurements can be performed. This relates particularly to the range in which the maximum period of a laser pulse exceeds 10 % of the rise time of the measuring signal of the infrared sensor.

Please replace the paragraph beginning on page 3, line 5, with the following rewritten paragraph:

In accordance with the present invention, this problem is solved by the provisions defined in the independent ~~Claims~~ claims. Expedient improvements of the invention are the subject matters of the dependent ~~further Claims~~ claims.

Please replace the paragraph beginning on page 4, line 20, with the following paragraph:

With such an inventive correction ~~is~~ it has now become possible for the first time to measure multi-layer samples with a high precision.

Please replace the paragraph beginning on page 10, line 15, with the following paragraph:

wherein

η : parameter characterizing the transparency of the sample,

Please replace the paragraph beginning on page 13, line 26, with the following paragraph:

Fig. 3 illustrates a typical laser pulse of medium length. The time is plotted in ms along the horizontal axis. The vertical axis reflects the intensity of the pulse in standardized units. The illustrated laser pulse presents a rated pulse length of 0.5 ms. In such a pulse, only two sections (a) and (c) can still be recognized. This pulse can ~~by~~ be expediently approximated in two segments.

Please replace the paragraph beginning on page 20, line 5 (Abstract of the Disclosure), with the following paragraph:

~~The present invention relates to a device for~~ detecting ~~the thermal conductivity by application of optical pulse techniques.~~

~~A sample preheated in a furnace is exposed to energy by means of an optical pulse. The temperature profile in the sample is recorded by means of an infrared sensor. The thermal conductivity of the sample can then be detected by mathematical derivation.~~

~~To reduce the influence of the time history of the optical pulse on measurement a measuring means is provided for determining this history. An analyzer unit then derives therefrom the corrected temperature profile.~~

~~In order to reduce the influence of the time history of the optical pulse on measurement a measuring means is provided for determining this history. An analyzer unit then derives therefrom the corrected temperature profile.~~ The present invention relates to a device for detecting the thermal conductivity by

application of optical pulse techniques. A sample preheated in a furnace is exposed to energy by means of an optical pulse. The temperature profile in the sample is recorded by means of an infrared sensor. The thermal conductivity of the sample can then be detected by mathematical derivation. To reduce the influence of the time history of the optical pulse on measurement, a measuring means is provided for determining this history. An analyzer unit then derives therefrom the corrected temperature profile.